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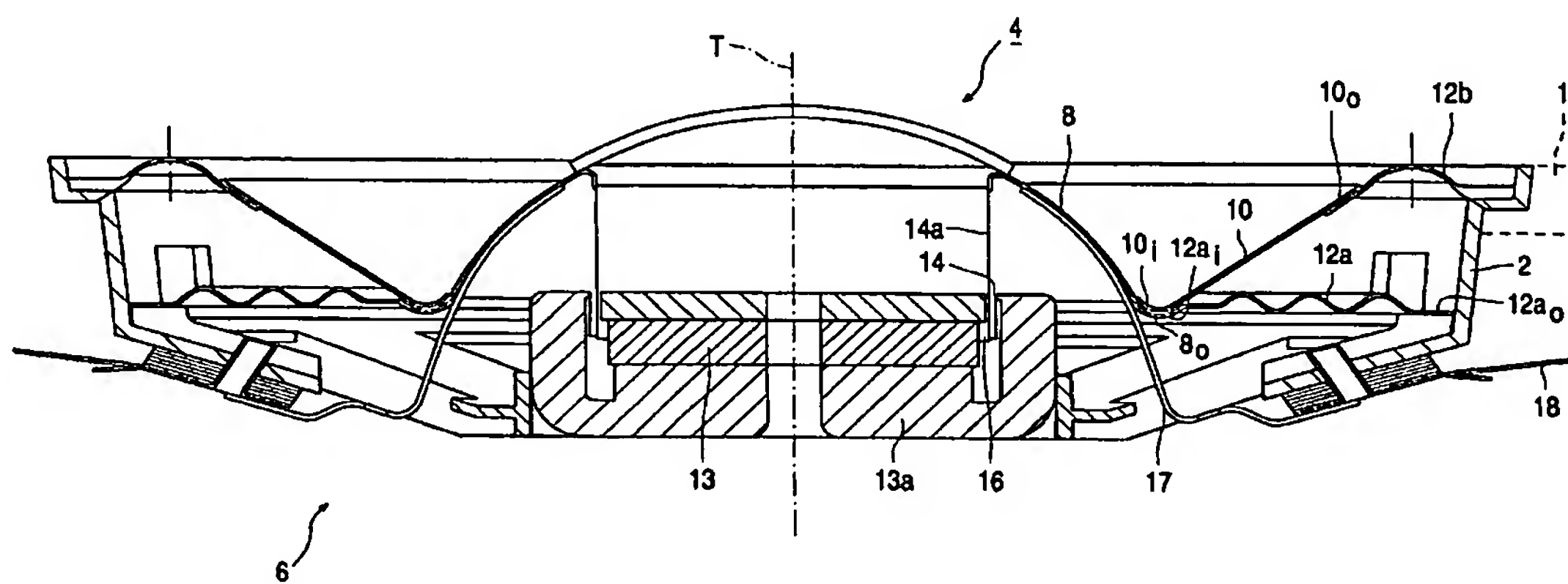
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[Continued on next page]

(54) Title: LOUDSPEAKER HAVING A COMPOSITE DIAPHRAGM STRUCTURE



(57) Abstract: A shallow loudspeaker provided with a chassis (2), a movable body (4), a resilient suspension for guiding the movable body with respect to the chassis along a translation axis (T), and an electric actuator (6) for driving the movable body along the translation axis. The movable body has a diaphragm structure comprising a central domeshaped diaphragm (8) and a cone-shaped diaphragm (10) concentrically arranged with respect to the dome-shaped diaphragm. The cone-shaped diaphragm has a back portion (10<sub>b</sub>) and a front portion (10<sub>f</sub>) which is wider than the back portion. Both diaphragms are attached to each other near the back portion of the cone-shaped diaphragm, the cone-shaped diaphragm enveloping the dome-shaped diaphragm. The resilient suspension comprises a first resilient element (12a) connecting the diaphragm structure to the chassis near the back portion of the cone-shaped diaphragm, and a second resilient element (12b) connecting the diaphragm structure to the chassis near the front portion of the cone-shaped diaphragm.



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